

**REMARKS**

The Examiner provides a number of rejections and we list them here in the order in which they are addressed:

- I. Claims 40-42 and 50-56 are rejected under 35 USC § 102(b) as allegedly being anticipated by Cohen et al., *Neuropsychopharmacology*, 8:365-370 (1993).
- II. Claims 54-56 are rejected under 35 USC § 112 ¶ 1 as allegedly failing to comply with the written description requirement.
- III. Claim 40 is provisionally rejected under 35 USC § 101 for double patenting as allegedly claiming the same invention as that of claim 49 in copending Application No. 10/193,735.
- IV. The Specification Is Allegedly Objectionable

**I. The Claims Are Not Anticipated**

As the Examiner is well aware, a single reference must disclose each limitation of a claim in order for that reference to anticipate the claim. *Atlas Powder Co. v. E.I. du Pont De Nemours & Co.*, 224 U.S.P.Q. 409, 411 (Fed. Cir. 1984). This criterion is not met with the Cohen et al. reference.

Cohen et al. does not teach any multivariate measurements but only teaches the calculation of simple univariate averaged data followed by an analysis of variance between three integrated time course curves:

The first 12 artifact-free, 4-second frames were selected and then analyzed via the Fast Fourier Transform. ... Measures of relative area under the power spectral curve at .25-Hz intervals were then obtained from the summed and averaged power spectral densities. ... Statistical analysis consisted of repeated-measures multivariate analysis of variance with Greenhouse-Geisser corrections conducted on normalized, relative area values for each frequency band at each electrode ...

*Cohen et al. pg 367 rhc [emphasis added]. In this analysis, Cohen et al. is averaging univariate measurements generated from the Fast Fourier Transform procedure. Cohen et*

al. does not disclose compressing a plurality of univariate measurements to generate a multivariate measurement. The Examiner is reminded that the Applicant has clearly defined a “multivariate outcome measurement”<sup>1</sup>:

"Multivariate outcome measurements" are quantitative output measurements collected from combinations of univariate neurophysiologic measurements collected from various regions of the brain.

*Applicants' Specification, pg 8 ln 16-18* [emphasis added]. Further, Cohen et al. does not disclose the calculation of a univariate Z score from which a multivariate measurement is derived. The Applicants have clearly described such univariate Z scores, for example:

... Z values are determined for each of the univariate variables ... these univariate variables are then aggregated into the composite multivariate clinical descriptors ... using special weighting functions for the electrodes of interest.

*Applicants' Specification pg 18 ln 24-29.*<sup>2</sup> Consequently, in order to clarify the presently claimed embodiment, the Applicants have amended Claims 40 and 54 to recite that the multivariate outcome measurements are “derived from univariate Z scores”. These amendments are made not to acquiesce to the Examiner's argument but only to further the Applicants' business interests, better define one embodiment and expedite the prosecution of this application. Applicants hereby expressly reserving the right to prosecute the original (or similar) claims in a continuing application.

The Applicants respectfully request that the Examiner withdraw the present rejection.

## II. The Claims Comply With The Written Description Requirement

The Examiner apparently believes that the specification does not disclose a frequency range from between approximately 0.5- 35 Hertz, thereby not complying with 35 USC § 112 ¶ 1. *Office Action pg 4*. This is surprising because (in the same paragraph) the Examiner admits that the disclosure identifies four overlapping frequency bands (i.e.,

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<sup>1</sup> "The patent law 'allows the inventor to be his own lexicographer,' " *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 867, 228 USPQ 90, 93 (Fed. Cir. 1985).

<sup>2</sup> Z scores are defined in the specification at pg 9 ln 14-16.

delta, theta, alpha, and beta) that comprise the presently claimed frequency range. Nonetheless, without acquiescing to the Examiner's argument but to further the prosecution, and hereby expressly reserving the right to prosecute the original (or similar) claims, Applicants have amended Claim 54 to include a Markush group reciting the specific frequency range of each disclosed frequency band (i.e., 0.5-3.5 Hertz, 3.5-7.5 Hertz, 7.5-12.5 Hertz, and 12.5-35 Hertz)<sup>3</sup>. This amendment is made to further the Applicants' business interests, better define one embodiment and expedite the prosecution of this application.

The Applicants respectfully request that the Examiner withdraw the present rejection:

### **III. The Claims Do Not Represent Double-Patenting**

The Examiner states that:

The provisional rejection of claim 40 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 29 of copending application number 10/193,735 is MAINTAINED ... because review of the copending application on 7/20/06 indicated that claim 49 is still pending in the application.

*Office Action* pg 3 ¶ 4 [emphasis added]. The Applicants are surprised that the Examiner could not verify that Claim 49 was withdrawn from the '735 application as explained in the previous response. For the Examiner's convenience the Applicants' have attached the first two pages of Examiner Nassers's Office Action Mailed 02/24/06 to United States Patent Application No. 10/193,735 clearly showing that Claims 29-62 are withdrawn from consideration (i.e., that includes Claim 49).

The Applicants respectfully request the Examiner withdraw this rejection.

### **IV. The Specification Is Not Objectionable**

The Examiner is requested to review the amendment to the specification modifying the website address located on page 12, lines 1-2.

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<sup>3</sup> Applicants' Specification pg 11 ln 8-9.

**CONCLUSION**

The Applicants believe that the arguments and claim amendments set forth above traverse the Examiner's rejections and, therefore, request that all grounds for rejection be withdrawn for the reasons set above. Should the Examiner believe that a telephone interview would aid in the prosecution of this application, the Applicants encourage the Examiner to call the undersigned collect at 617.984.0616.

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